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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/771,929	01/29/2001	Brian Kilgore	2479.1091-000	9084
21005	7590	06/01/2005	EXAMINER	
HAMILTON, BROOK, SMITH & REYNOLDS, P.C. 530 VIRGINIA ROAD P.O. BOX 9133 CONCORD, MA 01742-9133			STEVENS, ROBERTA A	
			ART UNIT	PAPER NUMBER
			2665	

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/771,929

Applicant(s)

KILGORE, BRIAN

Examiner

Roberta A. Shand

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-8, and 10-21 is/are rejected.
- 7) ☒ Claim(s) 2 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 5, 7-11, 13, 15 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhagwat (U.S. 6651105 B1) in view of Willars (U.S. 6507567 B1)

3. Regarding claim 1, Bhagwat teaches a method of preserving PPP session (figure 5) over a data network having mobile station (550) handoff capability, comprising: establishing a first link of the PPP session through a first path including a first wireless connection in the data network (col. 7, line 60 – col. 8, line 64); creating a second link associated with PPP session through a second path including a second wireless connection in the data network (col. 8, line 65 – col. 9, line 49); and releasing the first link while preserving the PPP session (figure 6 and col. 9, line 50 – col. 10, line 34).

4. Bhagwat does not teach establishing a correspondence between the first link and the second link prior to releasing the first link for uninterrupted communications during the PPP session.

5. Willars teaches (fig.2) establishing a correspondence between the first link and the second link prior to releasing the first link for uninterrupted communications during the PPP session (Willars teaches establishing a connection with a second channel before releasing the first channel). It would have been obvious to one of ordinary skill in the art to adapt this to

Art Unit: 2665

Bhagwat's system to avoid switching cost incase the first channel is needed within a certain time of the switch to the second channel and to avoid loss of service.

6. Regarding claims 3 and 10, Bhagwat teaches (col. 9, line 50 – col. 10, line 34) releasing the first link is in response to determining that the second path better supports the PPP session than the first path.

7. Regarding claims 5, 11 and 13, Bhagwat teaches (col. 8, line 65 – col. 9, line 49) creating a second link employing an underlying radio-link protocol.

8. Regarding claims 7 and 15, Willars teaches (fig. 9)) maintaining at least one data table (database) supporting correspondence between the first and second link for use in preserving the PPP session (Willars CPU in figure 9 maintains a update of channels and resources in order to maintain the service of the system avoiding loss in service).

9. Regarding claim 8, Bhagwat teaches an apparatus for preserving PPP session (figure 5) over a data network having mobile station (550) handoff capability, comprising: a mobile station (550), coupled to a first base station (AP1) via a first wireless connection over a first air interface in a first base station zone, and coupled to a second base station (AP2) via second wireless connection over a second air interface in a second base station zone, the first base station (AP1) being coupled to a remote server (595) via the data network, the second base station (AP2) being coupled to the remote server (595) via the data network; and a PPP session manager, to establish

Art Unit: 2665

a first link of the PPP session between the mobile station and the server via a first path including the first wireless connection (col. 7, line 60 – col. 8, line 64), to create a second link of the PPP session between the mobile station and the server via a second path including a second wireless connection in (col. 8, line 65 – col. 9, line 49), and to release the first link while preserving the PPP session (figure 6 and col. 9, line 50 – col. 10, line 34).

10. Bhagwat does not teach identifying a correspondence between the first link and the second link prior to releasing the first link for uninterrupted communications during the PPP session.

11. Willars teaches (fig.2) identifying a correspondence between the first link and the second link prior to releasing the first link for uninterrupted communications during the PPP session (Willars teaches establishing a connection with a second channel before releasing the first channel). It would have been obvious to one of ordinary skill in the art to adapt this to Bhagwat's system to avoid switching cost incase the first channel is needed within a certain time of the switch to the second channel and to avoid loss of service.

12. Regarding claim 19, Bhagwat teaches an apparatus of preserving PPP session (figure 5) over a data network having mobile station (550) handoff capability, comprising: means for establishing a first link of the PPP session through a first path including a first wireless connection in the data network (col. 7, line 60 – col. 8, line 64); means for creating a second link associated with PPP session through a second path including a second wireless connection in the data network (col. 8, line 65 – col. 9, line 49); and means for releasing the first link while preserving the PPP session (figure 6 and col. 9, line 50 – col. 10, line 34).

Art Unit: 2665

13. Bhagwat does not teach a means for identifying a correspondence between the first link and the second link prior to releasing the first link for uninterrupted communications during the PPP session.

14. Willars teaches (fig.2) a means for identifying a correspondence between the first link and the second link prior to releasing the first link for uninterrupted communications during the PPP session (Willars teaches establishing a connection with a second channel before releasing the first channel). It would have been obvious to one of ordinary skill in the art to adapt this to Bhagwat's system to avoid switching cost incase the first channel is needed within a certain time of the switch to the second channel and to avoid loss of service.

15. Regarding claim 20, Bhagwat teaches a computer readable medium having stored thereto sequence of instructions that when executed causes the processor to perform: establishing a first link of the PPP session (figure 5) through a first path including a first wireless connection in a data network having mobile station handoff capability (col. 7, line 60 – col. 8, line 64); creating a second link associated with PPP session through a second path including a second wireless connection in the data network (col. 8, line 65 – col. 9, line 49); and releasing the first link while preserving the PPP session (figure 6 and col. 9, line 50 – col. 10, line 34).

16. Bhagwat does not teach identifying a correspondence between the first link and the second link prior to releasing the first link for uninterrupted communications during the PPP session.

17. Willars teaches (fig.2) identifying a correspondence between the first link and the second link prior to releasing the first link for uninterrupted communications during the PPP session

Art Unit: 2665

(Willars teaches establishing a connection with a second channel before releasing the first channel). It would have been obvious to one of ordinary skill in the art to adapt this to Bhagwat's system to avoid switching cost incase the first channel is needed within a certain time of the switch to the second channel and to avoid loss of service.

18. Claims 4, 6, 12, 14 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bhagwat in view of Willars and further in view of Illidge (U.S. 2002/0085514 A1).

19. Regarding claim 21, Bhagwat teaches (figure 5) a multi-link PPP.

20. Regarding claims 4 and 12, as mentioned above Bhagwat and Willars teach all of the limitations of claim 1 and 3

21. Bhagwat and Willars do not disclose determining the signal to noise ratio.

22. Illidge teaches (page 4, paragraph 27) as a part of handoff procedure reporting the PN identity. It would have been obvious to one of ordinary skill in the art to adapt to Bhagwat and Willars' system Illidge's PN identity reporting to ensure a quality handoff.

23. Regarding claims 6 and 14, as for the manager creating other links, it is obvious that Bhagwat and Willars' system is for a plurality of mobile stations.

Art Unit: 2665

24. Regarding claims 16-18, as for the PPP session manager residing in a personal computer, wireless modem or gateway, it would have been obvious to one of ordinary skill in the art to have the manager reside in any number of devices.

Allowable Subject Matter

25. Claims 2 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

26. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

27. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 2665

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roberta A Stevens whose telephone number is 571-272-3161.

The examiner can normally be reached on M-F 9:00am-5:30pm.

29. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

30. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Roberta A Stevens
Examiner
Art Unit 2665



STEVEN NGUYEN
PRIMARY EXAMINER